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2012-203E

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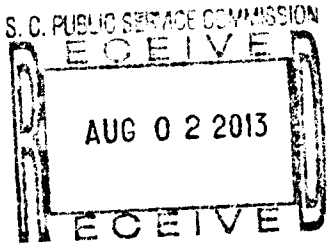


August 1, 2013

The Honorable Daniel E. Shearouse
Clerk, Supreme Court of South Carolina
Post Office Box 11330
Columbia, South Carolina 29211

Re: South Carolina Energy Users Committee v. The Public Service Commission
Appellate Case No. 2013-000529

Dear Mr. Shearouse:

Enclosed please find for filing the Initial Brief and Designation of Matter and Certificate of Counsel on behalf of Respondent/Appellant Sierra Club , together with Proof of Service..

With kind regards, I am

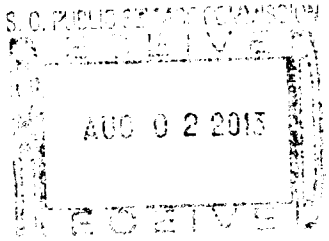
Sincerely,

Robert Guild

cc: Parties of Record

THE STATE OF SOUTH CAROLINA
In The Supreme Court

APPEAL FROM THE PUBLIC SERVICE COMMISSION



Docket No. 2012-203-E
Appellate Case No. 2013-000529

South Carolina Energy Users Committee,
Appellant/Respondent,

v.

The South Carolina Public Service Commission,
South Carolina Electric & Gas, Office of
Regulatory Staff, Sierra Club and Pamela Greenlaw,
Defendants,

of whom Sierra Club is
Respondent/Appellant.

DESIGNATION OF MATTER TO BE INCLUDED IN THE RECORD ON APPEAL OF RESPONDENT/ APPELLANT SIERRA CLUB AND CERTIFICATE OF COUNSEL

Respondent/Appellant Sierra Club proposes the following matter be included in the record on appeal and counsel certifies that this designation contains no matter that is irrelevant to this appeal:

1. Commission Order No. 2012-884, dated November 15, 2012; and Order No. 2013-5, dated February 14, 2013;
2. Petition to Intervene by Sierra Club;
3. Petition for Rehearing or Reconsideration by Sierra Club;
4. Transcript of Testimony and Proceedings in Commission Docket No. 2012-203-E:

Marsh, Rebuttal Examination by Mr. Burgess, Tr. 72, 75, 81; Marsh, Cross-Examination by Mr. Guild, Tr. 90, 91, 100, 103, 104, 106; Byrne, Direct Examination by

Mr. Ziegler, Tr. 143, 170,189; Byrne, Cross-Examination by Mr. Elliot, Tr. 325, 326, Walker, Direct Examination by Mr. Gissendanner, Tr. 695, 702, 706, 709,710, 711, 712, 713, 716; Lynch, Cross-Examination by Mr. Guild, Tr. 912, 918, 924; Cooper, Direct Examination by Mr. Guild, Tr. 936, 918, 940-950, 954-963, 969-974; Cooper, Surrebuttal Examination by Mr. Guild, Tr. 976, 978, 980; Cooper, Supplemental Surrebuttal Examination by Mr. Guild, Tr. 991, 994-1001; Jones, Direct Examination by Ms. Hudson, Tr. 1034, 1045, 1051,1059.

5. Exhibits from Commission Docket No. 2012-203-E:

Hearing Exhibit 2, SAB 4; Hearing Exhibit 10, MNC-2; MNC-10, MNC- 11; Attachment MNC-R-1

6. Notice of Appeal by Sierra Club.

August 1, 2013

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Sierra Club

THE STATE OF SOUTH CAROLINA
In The Supreme Court

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Respondent/Appellant.

PROOF OF SERVICE

I certify that I have served the attached Initial Brief and Designation of Matter and Certificate of Counsel on behalf of Respondent/Appellant Sierra Club on the below-named parties, at the addresses given, by depositing a copy of it in the United States Mail, postage prepaid, on this 1st day of August 2013.

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August 1, 2013

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BRIEF OF RESPONDENT/ APPELLANT SIERRA CLUB

August 1, 2013

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2.DID THE COMMISSION ERR IN FAILING TO PROPERLY APPLY THE PROVISIONS OF SC CODE ANN. §58-33-275 TO SCE&G'S PETITION TO INCLUDE ADDITIONAL CAPITAL COSTS ESTIMATES IN ITS BASE LOAD ORDER?

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6. DID THE COMMISSION ERR IN FINDING AND CONCLUDING THAT THE ADDITIONAL CAPITAL COSTS ASSOCIATED WITH CHANGE ORDER 16 ARE REASONABLE AND PRUDENT AND COMPORT WITH THE TERMS OF THE BLRA WHERE SUCH COSTS WERE ANTICIPATED, OR SHOULD HAVE BEEN ANTICIPATED BY SCE&G IN ITS INITIAL BASE LOAD REVIEW ACT APPLICATION AND ARE, THEREFORE, IMPRUDENT UNDER THE BLRA; AND SCE&G ASSUMED THE RISK OF THE ADDITIONAL COSTS ASSOCIATED

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11. DID THE COMMISSION ERR IN FAILING TO CONCLUDE THAT THE EVIDENCE IN THE RECORD OF MATERIAL CHANGED CONDITIONS REGARDING THE COSTS OF THIS PROJECT AND FEASIBLE ALTERNATIVES COMPELS A FINDING THAT CONTINUING TO INCUR CAPITAL COSTS FOR THE NUCLEAR PROJECT IS NOW IMPRUDENT WHERE SUCH COSTS CAN BE AVOIDED BY ABANDONING THE NUCLEAR PROJECT IN FAVOR OF A LESS COSTLY ALTERNATIVE ENERGY RESOURCE PLAN?

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16. DID THE COMMISSION ERR IN REJECTING THE EVIDENCE BY SIERRA CLUB THAT THE NUCLEAR PROJECT WAS NO LONGER PRUDENT IN LIGHT OF AVAILABLE ALTERNATIVES AND FINDING THAT THE EVIDENCE PRESENTED BY SCE&G AMPLY ESTABLISHES THE PRUDENCY OF CONTINUED INVESTMENT IN THE NUCLEAR PROJECT?

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19. DID THE COMMISSION ERR IN CONCLUDING THAT THE EVIDENCE IN THE RECORD DEMONSTRATES THAT THE $278.05 MILLION IN NEWLY IDENTIFIED AND ITEMIZED COSTS ARE THE RESULT OF NORMAL EVOLUTION AND REFINEMENT OF CONSTRUCTION PLANS AND BUDGETS FOR THE UNITS AND ARE NOT THE RESULT OF IMPRUDENCE ON THE PART OF SCE&G?

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21. DID THE COMMISSION ERR IN CONCLUDING THAT THE EVIDENCE IN THE RECORD SHOWS THAT THE DELAY IN THE SUBSTANTIAL COMPLETION OF UNIT 2 AND THE ACCELERATION OF THE COMPLETION OF UNIT 3 SUPPORTS UPDATING THE CONSTRUCTION MILESTONES FOR THE UNITS AND IS NOT THE RESULT OF ANY IMPRUDENCE ON THE PART OF SCE&G?

22. DID THE COMMISSION ERR, BASED ON THE EVIDENCE PRESENTED BY SIERRA CLUB AND ITS EXPERT, DR. MARK COOPER, IN FAILING TO REQUIRE SCE&G TO UNDERTAKE A THOROUGH EVALUATION OF THE PRUDENCE OF ABANDONING THE NUCLEAR PROJECT IN FAVOR OF A LESS COSTLY ALTERNATIVE ENERGY RESOURCE PLAN?

23. DID THE COMMISSION ERR IN ITS ORDER APPROVING THE PETITION BY SCE&G WHERE SAID ORDER IS ARBITRARY, CAPRICIOUS, AN ABUSE OF DISCRETION, CLEARLY ERRONEOUS, UNSUPPORTED BY SUBSTANTIAL EVIDENCE, IN VIOLATION OF CONSTITUTIONAL OR STATUTORY PROVISIONS, MADE UPON UNLAWFUL PROCEDURE OR AFFECTED BY OTHER ERROR OF LAW?

STATEMENT OF THE CASE

This is an appeal by Sierra Club from Orders of the Public Service Commission approving the May 15, 2012, Petition by South Carolina Electric & Gas Company ("SCE&G or Company") pursuant to the Base Load Review Act, S.C. Code Ann. §§ 58-33-210 et seq., for approval of an updated capital costs schedule in connection with the construction of the two-unit, 2,234 net megawatt nuclear power plant located at the V. C. Summer Nuclear Station site near Jenkinsville, South Carolina. The Petition sought to add some $283 million in cost increases to the previously approved capital cost budget; and a schedule delay of some eleven (11) months in the projected completion date for the initial unit. This appeal presents the questions of whether the Commission properly interpreted the "prudence" standard under the Act for review of material deviations from the approved project budget; and whether the prudence of project cancellation, expressly contemplated under the Act, must also be considered when material new information so warrants.

Sierra Club timely intervened before the Commission to protect the interests of its members who are ratepayers of SCE&G and neighbors of the site of the proposed nuclear plant. The Sierra Club is the oldest and largest non-profit grassroots environmental organization in the world with some 750,000 members, 65 Chapters and over 400 local groups. The South Carolina Chapter has nine local groups with more than 5,000 members across the state. The Club's mission

is to explore, enjoy, and protect the wild places of the earth; to practice and promote the responsible use of the earth's ecosystems and resources; to educate and enlist humanity to protect and restore the quality of the natural and human environment; and to use all lawful means to carry out these objectives. The Club and its members actively promote safe energy solutions including energy efficiency and renewable energy resources to combat the climate crisis and to protect human health and the natural environment. Petition to Intervene, pp. 1-2.

Other intervenors before the Commission included the South Carolina Energy Users Committee, an organization of a number of industrial customers of the utility and Pamela Greenlaw, a residential customer. The South Carolina Office of Regulatory Staff (ORS) was a party pursuant to S.C. Code Ann. §58-4-10.

Hearings were conducted by the Commission on October 2-3, 2012.

SCE&G presented the testimony its Chairman and Chief Executive, Kevin B. Marsh; its Generation and Transmission President, Stephen A. Byrne; its General Manager for Operational Readiness for New Nuclear Deployment, David A. Livigne; its Manager for Transmission Planning, Hubert C. Young and its Vice President for Nuclear Finance Administration, Carlette L. Walker.

ORS presented the testimony of its Associate Program Manager of the Electric Department, Allyn H. Powell and its nuclear construction consultant, Gary C. Jones, P.E.

The Sierra Club presented the testimony of Dr. Mark Cooper, Director of Research at the Consumer Federation of America.

In response to Dr. Cooper's testimony, SCE&G presented rebuttal testimony by Messrs. Marsh and Byrne and its Manager of Resource Planning, Dr. Joseph M. Lynch. Surrebuttal and supplemental testimony was presented for Sierra Club by Dr. Cooper in response to Dr. Lynch's testimony and late-filed supplemental study. Order No. 2012-884, pp. 10-11.

In its November 15, 2012, Order No. 2012-884, the Commission approved $278.05 million of the $283 million sought in cost increases to the previously approved capital cost budget for the nuclear project as well as the proposed construction schedule delays. It determined that such cost increases were "the result of the normal evolution and refinement of construction plans and budgets for the Units and are not the result of imprudence on the part of SCE&G." It deferred approval of the balance of the proposed cost increase- attributable to Phase II cyber security costs- until a point where such costs become more definite and certain at which time they may be brought back "for further consideration." Order No. 2012-884, p. 72. In addition, while purporting to evaluate the prudence of completing the project in light of material changes in costs, the Commission ruled that consideration of the prudence of project cancellation represented an impermissible reopening of the initial prudency determination, contrary to the BLRA, inviting "motions in limne" on such an issue in any future proceeding. Order No. 2012-884, p. 18. In its Order No. 2013-5, rejecting reconsideration, the Commission ruled that the BLRA imposed no "new, higher or different standard for judging prudency," for material cost overruns such as are proposed by the utility here; thereby rejecting the claims by Sierra

Club and South Carolina Energy Users Committee that, pursuant to the the BLRA, such material and adverse project cost increases should be disallowed for early cost recovery where the utility could and should have anticipated, avoided or minimized such increased costs in its initial project budget. Order No. 2013-5, pp. 10-12.

Timely petitions for rehearing or reconsideration were filed by Sierra Club and South Carolina Energy Users Committee,, which were denied by the Commission in Order No. 2013-5, dated February 14, 2013. Notices of Appeal were served and filed in this Court by Sierra Club on March 18, 2013 and by South Carolina Energy Users Committee.

ARGUMENT

1. WHERE THE PUBLIC SERVICE COMMISSION FAILED TO PROPERLY REVIEW THE PRUDENCE OF $283 MILLION IN NUCLEAR PLANT COST INCREASES AND CONSTRUCTION SCHEDULE DELAYS, ITS ORDER ALLOWING EARLY COST RECOVERY UNDER THE BASELOAD REVIEW ACT (BLRA) IS CLEARLY ERRONEOUS.

In this request for approval of cost overruns and schedule delays the Company and Commission reflect a continuing flawed understanding of the limited extent to which the Baseload Review Act has relaxed protections for ratepayers from imprudently incurred costs in constructing new generating facilities. The Commission has accepted a wholly empty standard of "prudence" for measuring proposed material overruns in the original approved cost for constructing these new nuclear plants contrary to the requirements of the Baseload Review Act which expressly requires a demonstration that such new

costs could not have been originally anticipated, avoided or minimized in order to be prudent. South Carolina Code (Supp. 2009) § 58-33-275(E). In addition, the Commission continues to accept reliance on mere estimates and contingent projected construction costs in place of demonstrated prudent and reasonable capital costs; despite the decision to the contrary by this Court in excluding such unproven contingencies from Baseload Act approval.

> Thus, in effect, the Commission has allowed SCE&G to increase rates so that it can recover . . . .speculative, un-itemized expenses with no mechanism in place to challenge the prudence of SCE&G's financial decisions.

SC Energy Users Committee v. SC Public Service Commission, 388 S.C. 486 at 496, 697 S.E. 2d 587 (2010). Further, the Commission misapprehends the Baseload Act's burden of adhering to the approved construction cost and schedule initially deemed prudent and reasonable, as adjusted by authorized inflation escalation factors, in order to assure recovery of such capital costs from ratepayers. South Carolina Code (Supp. 2009) § § 58-33-270(B)(1) and 58-33-270(B)(2). Changes in the approved capital budget and construction schedule may be approved only where they are not the result of the Company's failure to anticipate, avoid or minimize such changes which are, therefore, deemed imprudent. South Carolina Code (Supp. 2009) § 58-33-270(E)(1).

> In cases where a party proves by a preponderance of the evidence that there has been a material and adverse deviation from the approved schedules, estimates, and projections set forth in Section 58-33-270(B)(1) and 58-33-270(B)(2), as adjusted by the inflation indices set forth in Section 58-33-270(B)(5), the commission may disallow the additional capital costs that result from the deviation, but only to the extent that the failure by the utility to anticipate or avoid the deviation, or to minimize the resulting expense, was imprudent

considering the information available at the time that the utility could have acted to avoid the deviation or minimize its effect. (Emphasis supplied).

South Carolina Code (Supp. 2009) § 58-33-275(E). Such cost overruns and schedule delays- while perhaps required for completion of the project- are not properly subject to early cost recovery under the BLRA; and must be borne for now by the Company's stockholders and not its ratepayers where not prudently anticipated or avoided. Here, the substantial cost increases associated with such changes as those to the incomplete design for the reactor containment building; as well as the newly determined need to increase staffing to properly address construction quality assurance problems, are exemplary of cost overruns which should have been properly anticipated or avoided. Such costs may of necessity be incurred in order to safely construct the nuclear plant; but they must be borne initially by stockholders and not ratepayers under the limited risk-shifting, early cost recovery authority of the Baseload Review Act.

Neither SCE&G nor ORS offered any evidence under the BLRA standard of prudence. No demonstration whatsoever was offered to establish that these cost overruns could not have been anticipated, avoided or minimized by the utility at the time of its initial Baseload Act application. Sierra Club's expert, Dr. Mark Cooper, has researched, published and testified extensively before legislative and regulatory commissions on energy economics and electric utility generation resource planning. Tr. pp. 949-950. Sierra's expert, Dr. Cooper, alone in this record, assessed the proposed cost overruns against the proper BLRA standard and found them imprudent within the meaning of the Act.

For its part, the Commission uncritically accepted all but a small fraction of the increased costs ($278.05 of $283 million) as prudent and chargeable to ratepayers in advance of plant completion. The Commission concluded that these "newly identified and itemized capital costs are the result of the normal evolution and refinement of construction plans and budgets for the Units." Order No. 2012-884, pp. 68-69.

On reconsideration the Commission expressly rejected the claims of Sierra and Energy Users that the BLRA required an objective standard of prudence to measure proposed cost overruns.

> S.C. Code Ann. § 58-33-275(E) embodies the established rule that prudency is not judged by hindsight but mst be judged based on the information available to the utility at the time that meaningful decisions can be made to avoid or minimize costs. Contrary to Petitioners' assertions, S.C. Code Ann. § 58-33-270(E) does not create a special duty to identify costs in initial BLRA proceedings that is different from the duty that exists under the standard prudency rule.

Order No. 2013-5, p. 11. In effect, by this ruling the Commission has relieved the utility of any meaningful obligation to construct the new plant in accordance with the original capital cost budget and construction completion schedule, since it is relieved of any obligation to "anticipate, avoid or minimize" those plant construction costs when it first seeks Commission approval to construct. The basic bargain of the BLRA becomes a one-sided guarantee to the utility that it has a blank check to construct the nuclear plant at whatever escalating cost without any meaningful prudency check. A low ball initial price tag will be followed by routine cost and schedule changes to be approved uncritically by the Commission. Such is the inevitable consequence of the Commission's rejection of the objective prudency

standard for approval of material cost increases provided by the BLRA. The fundamental ratepayer protection of the BLRA is nullified: that the utility will be assured of the recovery of its capital costs if, but only if, it constructs the plant at the promised cost and schedule. South Carolina Code (Supp. 2009) § 58-33-275©.

Here, it is uncontested that the $278.05 million in additional costs are a material and adverse deviation from the approved schedules, estimates and projections. Indeed, the Commission found that "(T)he updated capital cost schedule contained in Hearing Exhibit No. 6 (CLW-1) reflects $283 million in costs that have not previously been presented to the Commission for review and approval." Order No. 2012-884 at p. 71. By definition the Company proposes material and adverse deviations from the Commission's previously approved plant construction budget.

The BLRA provides the utility with the financial benefits of advanced cost recovery. However, the BLRA provides the utilities ratepayers with protection form imprudent costs, including payment in advance for capital costs which the utility imprudently failed to anticipate, avoid or minimize.

The legislative purpose of the BLRA is "two –fold: (1) to allow SCEG to recover its 'prudently incurred costs' associated with the nuclear facility; and (2) to protect customers 'from responsibility for imprudent financial obligations or costs." South Carolina Energy Users Committee v. South Carolina Public Service Commission, 697 S.E.2d 592, 388 S.C. 486 at 495(2010). To balance the

interests of the utility and the rate payer, the General Assembly designed a specific and detailed statutory blueprint for establishing prudent costs to be recovered through revised rate filings. The Commission's authority to issue a base load review order is prescribed by the express terms of the BLRA. A base load review order issued pursuant to the BLRA,

> means an order issued by the commission pursuant to Section 58-33-270 establishing that if a plant is constructed in accordance with an approved construction schedule, approved capital costs estimates, and approved projections of in-service expenses, as defined herein, the plant is considered to be used and useful for utility purposes such that its capital costs are prudent utility costs and are properly included in rates. S.C. Code Ann. Section 58-33-220(4).

Thus, if the plant is constructed on schedule and within the approved capital budget, the Act assures the utility that it will recover its capital costs in customer rates since such investment is deemed prudent, used and useful within the meaning of those traditional public utility regulatory terms. Sou. Bell Tel. & Tel. Co. v. Pub. Ser. Comm., 270 S.C. 590 at 595, 244 S.E.2d 278 (1978), citing, Bluefield Water Works & Improvement Co. v.Public Service Commission of West Virginia, 262 U.S. 679,43 S.Ct. 675, 67 L.Ed. 1176 (1923), and Federal Power Commission v. Hope Natural Gas Co., 320 U.S. 591,64 S.Ct. 281, 88 L.Ed. 333 (1944).

The BLRA expressly sets out the factual showing necessary for a base load review order. S.C. Code Ann. §58-33-250 provides (in its pertinent part):

> The application for a base load review order under this article shall include:

1. information showing the **anticipated** construction schedule for the plant; [Emphasis added]

2. information showing the **anticipated** components of capital costs and the anticipated schedule for incurring them; [Emphasis added]

If a utility establishes that its nuclear plant is constructed in accordance with (1) an approved construction schedule, (2) approved capital costs estimates, and (3) approved projections of in-service expenses, the nuclear plant is considered to be used and useful for utility purposes and the utility is entitled to advanced recovery of its capital costs for in revised rates. §58-33-275 (A) and ©.

While the Commission's construction of a statute it is charged with administering is entitled to "the most respectful consideration," Dunton v. S.C. Bd. of Exam'rs In Optometry, 291 S.C. 221, 223, 353 S.E.2d 132, 133 (1987), its decisions will not be upheld where they are "clearly erroneous, or arbitrary or capricious, or an abuse of discretion, in view of the substantial evidence of the record as a whole. Duke Power Co. v. Public Service Commission, 343 S.C. 554, 541 S.E.2d 250 at 252 (2001); see S.C. Code Ann. § 1-23-380(5)(f) (Supp. 2009). The Commission's construction of the Baseload Review Act will not be upheld where it is clearly erroneous or represents an abuse of discretion. South Carolina Energy Users Committee v. South Carolina Public Service Commission, 697 S.E.2d 592, 388 S.C. 486 at 491 (2010).

"The cardinal rule of statutory construction is to ascertain and effectuate the intent of the legislature." Hardee v. McDowell, 381 S.C. 445, 453,

673 S.E.2d 813, 817 (2009) (internal quotation omitted). Under the plain meaning rule, it is not the province of the court to change the meaning of a clear and unambiguous statute. Hodges v. Rainey, 341 S.C. 79, 85, 533 S.E.2d 578, 581 (2000). Where the statute's language is plain, unambiguous, and conveys a clear, definite meaning, the rules of statutory interpretation are not needed and the court has no right to impose another meaning. Gay v. Ariail, 381 S.C. 341, 345, 673 S.E.2d 418, 420 (2009). If the statute is ambiguous, however, courts must construe the terms of the statute. Lester v. S.C. Workers' Comp. Comm'n, 334 S.C. 557, 561, 514 S.E.2d 751, 752 (1999). "A statute as a whole must receive practical, reasonable, and fair interpretation consonant with the purpose, design, and policy of lawmakers." Sloan v. S.C. Bd. of Physical Therapy Exam'rs, 370 S.C. 452, 468, 636 S.E.2d 598, 606 (2006). Words in a statute must be construed in context, and their meaning may be ascertained by reference to words associated with them in the statute. Eagle Container Co., LLC v. County of Newberry, 379 S.C. 564, 570, 666 S.E.2d 892, 895-96 (2008). When faced with an undefined statutory term, the term must be interpreted in accordance with its usual and customary meaning. Branch v. City of Myrtle Beach, 340 S.C. 405, 409-10, 532 S.E.2d 289, 292 (2000). Courts should not merely consider the language of the particular clause being construed, but the undefined word and its meaning in conjunction with the purpose of the whole statute and the policy of the law. Id., at 410, 532 S.E.2d at 292.

By ignoring the express Baseload Review Act legislative language defining

the prudence standard for reviewing and approving material cost overruns and construction schedule delays the Commission has abused its discretion and has acted arbitrarily and capriciously. Its orders approving the $278.05 million cost overruns and the construction schedule delay for this baseload nuclear plant are clearly erroneous and must be overturned.

2. WHERE THE UTILITY SHOULD HAVE ANTICIPATED, AVOIDED OR MITIGATED THIS $283 MILLION IN NUCLEAR PLANT COSTS IN ITS INITIAL BASELOAD REVIEW APPLICATION, SUCH COSTS ARE DEEMED IMPRUDENT AND NOT SUBJECT TO EARLY COST RECOVERY UNDER THE BASELOAD REVIEW ACT(BLRA).

SCE&G petitioned the Commission to approve an additional $283 Million in capital costs to be included to the utility's BLRA order. The request includes costs which SCE&G has incurred but for which it seeks approval as well as costs that it now anticipates it will incur in the future.

First, SCE&G seeks approval of Change Order 16 which formalizes certain agreements entered into among SCE&G, the project co-owner Santee Cooper, and the contractor Westinghouse/Shaw that resolved claims by Westinghouse/Shaw for additional costs associated with four matters:

1. The shield building for the AP 1000 unit as it had been redesigned to increase its resistance to aircraft impacts;

2. Rescheduling the construction plan for the units to take into account the approximately nine (9) month delay in the issuance of the COL;

3. The structural modules for the project, as redesigned, using higher

strength steel than was originally specified, among other changes; and

4. Responding to unanticipated rock conditions at the foundation of Unit II. (Byrne Prefiled Direct Testimony, Tr. p. 189, ll. 1-14). The settlement costs total $137.5 Million which SEC&G seeks to recover in rates in this docket.

Second, SCE&G seeks to include an additional $131.6 million in owner's costs in its Base Load Review Order in this Application. It should be noted that the Commission by Order 2011-345 issued May 16, 2011, authorized SCE&G to include $145 million in owner's costs. Just nine (9) months later, SCE&G presents itself before this Commission seeking an additional $131.6 million. In particular, the additional owners' costs can be found at Chart B found in Ms. Walker's Prefiled Direct Testimony, Tr. 713, line 6. These costs are generally for increased IT infrastructure including licenses, hardware, software and implementation costs, additional labor or employment costs and additional facilities costs.

In addition, increased proposed transmission costs of $7.9 million and other change orders of $5.9 million, together with the $137.5 Million in Change Order 16 and the proposed additional $131.6 million in owner's costs, constitute the total additional $283 Million in capital costs sought to be included to the utility's BLRA order. Walker, Prefiled Direct Testimony, Chart A, Tr. 706, line 1.

Ms. Walker testified that SCE&G created the owner's cost estimates in its 2008 BLRA Application while it was evaluating nuclear generation options and negotiating the terms of the EPC contract with Westinghouse/Shaw. Ms. Walker

points out that most recently, SCE&G sought and obtained an additional $145 million in owner's costs in Docket 2010-376-E. Ms. Walker testifies that the owner's cost figures approved in that docket were based on a "detailed staffing plan, the project budget and a cost center by cost center review of the cost of the project that had been compiled during the period 2008 through 2010. (Walker Prefiled Direct Testimony at Tr. 709, lines 19 through 710, line. 7) According to Ms. Walker, the request of an additional $145 million in owner's costs in Docket No. 2010-376-E was required because SCE&G had lost the use of the contingency fund approved in Order No. 2009-104A which was disallowed by the South Carolina Supreme Court in South Carolina Energy Users Committee vs. The South Carolina Public Service Commission. (Walker Prefiled Direct, Tr. 710 lines 8-14) Ms. Walker further testified that since Order No. 2011-345, SCE&G has continued to "review, refine and update these owner's cost projections" and consequently the utility has identified an additional $131, 624,000 in owner's costs. (Walker Prefiled Direct testimony, Tr. 711, line 1- 712 line 12). In fact, Mr. Byrne testified that SCE&G anticipates that its annual review of owner's costs for the nuclear generating plants will require SCE&G to come in on a regular basis to petition the Commission annually to request additional owner's costs be placed in rates (Tr. p. 326, lines 14-18). Indeed, Mr. Marsh characterized all but $18 million of the $283 million in cost increases as not "cost overruns" at all but merely the same "contingency" costs which the Supreme Court excluded from the initial baseload approval.

> I don't agree with that, because the petition we put before the Commission included a line item for contingencies, which we anticipated we would use those funds for items such as the ones that make up the 174 and the 283 that we're talking about today. So to call those cost overruns - -all I would concede would be cost overruns would be the additional $18 million, which we believe is prudent, which we've got testimony to support today, and not the whole amount.

Marsh, Tr. 91, lines 15-23.

Mr. Marsh's testimony reflects a fundamental misapprehension about the Company's prudence burden under the BLRA as explained by the Supreme Court. The Company's failure to specify the anticipated "contingency" costs in its initial baseload application; and its subsequent failure to specify the additional $283 million in new overruns when it came back for only $174 million in "contingencies" last round, should preclude approval of these cost overruns now.

Sierra Club expert Dr. Mark Cooper testified that in spite of all the remarkably favorable treatments of nuclear reactors under the BLRA, the Company has chosen to leave the safe harbor of the initial prudence review and seek recovery of a massive cost overrun. In Dr. Cooper's opinion such cost overruns are imprudent within the terms of the advanced cost recovery language of the statute. The statute did not intend to give the utility a blank check. Cost overruns must be just, reasonable and demonstrated to be prudent. Tr. 969.

The Company originally sought approval of the project on the basis of a cost estimate and then revised it upward after the contingency cost pool was not allowed. Given the special treatment of costs under the BLRA, cost increases demand close scrutiny, to avoid a strategy in which the utility locks in sunk costs

with low-ball estimates and puts pressure on regulators to approve a series of "small" cost overruns. The fact that the company identifies a series of risks associated with the construction of nuclear reactors did not excuse it from properly evaluating and incorporating those risks into the initial cost estimate. If they can shift the risks to ratepayers, they will be inclined to make more risky decisions than they would if they had skin in the game. The fact that the company identifies a series of risks associated with the construction of nuclear reactors does not exempt it from bearing some of the costs of those risks. It earns a full rate of return on its capital, which is supposed to reward it for risk, and has been afforded a variety of other incentives to invest in nuclear. Tr. 969-970.

The excuses the Company gives for the cost overruns are characteristics of the nuclear construction process that are well known and have been recognized for decades. They were identified by analysts of the current building cycle early on. Prudent decision making would have taken these factors into account when the proposal was presented to the Commission. The risks that the utility identifies and now wants to pass on to the ratepayers were well known before they made the cost estimate on which the reactors were approved and before they signed the EPC contract:

1. The fact that there would be difficulties in finding adequately qualified and trained personnel was widely recognized.

2. The fact that the supply chain was stretched thin was widely recognized.

3. The fact that there would be bumps in the road of regulatory approval was also certainly predictable. The failure to comply with NRC requirements is the responsibility of the utility, not the ratepayers or the NRC.

4. Given the history of nuclear reactor construction in the U.S. and around the world, the fact that requirements would evolve over time should have been foreseen and included in the cost estimate.

Tr. 970-971.

The fact that SCE&G hoped others would help to defray the cost of developing a completed design was poor judgment on its part. Its cost estimate should have reflected the possibility that it would need to complete the project on its own. Hoping that five utilities would share the costs of finishing the design work was a risk the utility chose to take. The fact that the vendor apparently scuttled that approach by refusing to allow companies who had not signed an EPC to continue to participate in the design work (by not allowing them to see confidential information), only compounds the imprudence. Here we have a gamble by the utility that went bad as a result of unilateral action by the vendor, perhaps in an attempt to close sales, but the ratepayers are asked to pick up the tab.

The utility has discovered that its information technology (IT) systems are outdated and need to be updated. Unit 1 requires the upgrade, which would be reviewed in a general rate case. Antiquated IT costs are shifted from Unit 1, where they would be subject to routine cost recovery, into the Base Load Review Act proceeding. Tr. 716.

The decision to shift cost from its partners in the project to SCE&G ratepayers without providing any benefits to offset the costs is unjustified and

demands extreme scrutiny. Tr. 970-971.

The allocation of the burden of risk in the cost overruns is not just, reasonable and prudent. The Company has shouldered none of the risks. The Company points out that it negotiated a reduction in the vendor's claim for additional costs. Compared to the costs that the utility has asked ratepayers to cover, the utility has asked for ratepayers to pick up six-sevenths of the total cost overruns. The utility has shouldered none of the costs as Table 1 shows:

Table 1: Allocation of cost Overruns

	Change Orders	Owner Cost	Transmission	Total
Vendor	$76	0	0	$76
Ratepayers	$156	$276	$21	$453
Owner	$0	$0	$0	$0

As Dr. Cooper's discussion of the role of prudence review above makes clear, producers are likely to bear some or all of the risk of cost overruns in competitive markets. Given that the utility is guaranteed a full rate of return in advance, allowing it to avoid any share of the cost overruns insulates it from the risks that ratepayers and even the vendors are bearing. Tr. 970-971.

In Dr. Cooper's opinion many of these risks were known and should have been factored into the Company's original cost projections. Dr. Cooper has done extensive analysis of both the long-term history of nuclear construction and the development of the recent nuclear construction proposals. His analysis

indicates that every one of the causes of the cost overruns here should have been quite evident to a prudent utility at the outset. The Company charged ahead with a low ball estimate in spite of this clear evidence of risk, underestimating the costs, which it now seeks to recovery through a third bite at the apple.

Dr. Cooper presents a comprehensive view of U.S. nuclear construction cost estimates and actual costs, which he began compiling in 2009 to evaluate the question of whether nuclear cost escalations are predictable. Hearing Exhibit 10, MNC-10. Not only was the tendency for cost escalation known from the first generation of nuclear reactor construction, the recent cost estimates had shown a similar tendency from the beginning of the so called "nuclear renaissance" through 2008 when the Company put forward its cost estimate here. By comparing cost escalation in France and the U.S., as shown in Hearing Exhibit 10, MNC-11 and analyzing the fundamental problem that safety poses for nuclear power, he shows that the cost escalation problem is endemic to the technology.

The fact that there would be particular challenges in restarting a nuclear construction sector in the U.S. was well known at the time the Company prepared its initial estimate. The Keystone Center's study of nuclear power pointed to "a recent nuclear industry conference that was covered in a February 2007 story in Nucleonic Week that ran under the headline "Supply chain Could Slow the Path to Construction" and a January 18, 2007 story that ran under the headline "Vendors Relative Risk Rising in New Nuclear Power Market," in regard to labor shortages. By rushing to be among the first in line, for a design that had not been approved or implemented in the U.S., the Company took on extraordinary risk,

that it failed to include in its initial cost estimate. It now seeks to impose the costs of its imprudently rosy initial cost projection with approval of cost overruns. If more than $450 million of cost overruns sought to date had been included in the initial cost estimate, the Commission might well have concluded that nuclear reactor construction was not just, reasonable and prudent, even with the assumptions about high gas and carbon costs. Subsidizing the revival of the nuclear construction sector was not the intention of the BLRA. The project must be just, reasonable and prudent by the traditional standards and the utility was obligated to factor those risks into its initial cost projection. Tr. 972-973.

Indeed, the imprudence of nuclear construction is well recognized within the utility sector. Ironically, the three utilities that the vendor blocked from working on the completion of the design were excluded because they had decided not to sign an EPC and move ahead with construction. In fact, the vast majority of projects that were under consideration when SCE&G signed its EPC have been cancelled or are dormant. SCE&G's public sector partners have been reducing their take of power from the project at a rapid pace. General Electric, one of the largest vendors of generation technologies with a broad portfolio of wind, gas and nuclear has concluded that nuclear is much less attractive than gas and wind. The EIA, Exelon and PJM analyses reach a similar conclusion, as do a number of other regulatory bodies and Wall Street analysts. Tr. 974.

Dr. Cooper's opinion that the Company's agreement to the EPC was an imprudent "rush to judgment" or a rush to get to the head of the line is confirmed by developments since the Company initially characterized the risks involved in

this nuclear project. The primary rationale for signing the EPC early offered in the risk assessment that Mr. Byrne attached to his rebuttal testimony, Hearing Exhibit 2, SAB 4, has evaporated as the bubble of the nuclear renaissance burst. Rather than a rush of orders (p. 1, 3, 6), which the utility considered a threat to increase costs, there has been a mass abandonment of projects, including the reference design project (p.2). Design revisions have increased by almost one third (p. 2). Licensing has been delayed because of substantive design problems (p. 3-4). The availability of qualified personnel has clearly been a problem (p. 6), as have manufacturing and quality issues (p. 7). The collaborative effort to defray the cost of completing the design has collapsed. These are the difficulties that have led to an increase in the cost estimate. Being first in line will cost ratepayers dearly. Given the collapse of the nuclear renaissance, if anyone were ordering new reactors toady, they might get a lower cost because demand is so slack and the early reactors have borne the brunt of the learning costs, but the economics of new nuclear construction has turned so sour that new orders are not being placed. Tr. 978.

Tellingly, the ORS witnesses, Jones and Powell, while opining that the cost overruns are "reasonable" in light of the need to safely construct the facility with tightening regulatory requirements and identified quality problems; nowhere express the opinion that imposing such cost overruns on ratepayers would be "prudent" as required by the Baseload Review Act; nor do the ORS witnesses provide any analysis or express any opinion as to whether any of these costs should have been anticipated, avoided or minimized at an earlier time, as

required by the BLRA.. Eg. Jones, Tr. 1059, lines 9-12. Moreover, ORS witness Jones cautions that the Company's revised construction schedule is "aggressive and ambitious" without precedent at "any modern nuclear power plant in the United States:" presenting "a risk to on-time completion of the Project." Tr. 1051, lines 18-22. Such an incomplete prudence assessment and cautionary warning by ORS of the risk of costly delays to come further undermine approval of these cost overruns.

In the absence of any evidence by SCE&G or ORS demonstrating the prudence of these proposed project capital cost increases; and in light of the contrary evidence that these costs could and should have been anticipated, avoided or minimized, approval of these $278.05 million in capitol cost increases should be denied.

3. WHERE THE BASELOAD REVIEW ACT(BLRA) EXPRESSLY CONTEMPLATES THE PRUDENCE OF PROJECT ABANDONMENT AND UTILITY RECOVERY OF PROJECT COSTS, THE PUBLIC SERVICE COMMISSION'S RULING THAT THE PRUDENCE OF PROJECT ABANDONMENT COULD NOT BE CONSIDERED IN THIS PROCEEDING IS CLEARLY ERRONEOUS.

The Commission fundamentally misconstrued the balance required by the Baseload Review Act which is essential to ensure the protection of ratepayers from imprudently incurred costs associated with projects whose completion no longer remains prudent in light of materially changed conditions since the initial project approval. While the Baseload Act expressly contemplates the abandonment of projects and the recovery of costs sunk in that project by the

utility where the abandonment decision is demonstrated to be prudent; the Commission ruled here that the issue of going forward with the project could not properly be raised by ratepayers in what the Commission now characterizes as the likely "routine" cost "update" proceedings. Such an approach improperly skews the allocation of risks and benefits under the Baseload Act in favor of the utility and against ratepayers.

> Update proceedings are likely to be a routine part of administering BLRA projects going forward (including future projects proposed by other electric utilities), such that under the Sierra Club's argument, the prudence of the decision to build the plant will be open to repeated relitigation during the construction period if a utility seeks to preserve the benefits of the BLRA for its project. Reopening the initial prudency determinations each time a utility is required to make an update filing would create an outcome that the BLRA was intended to prevent and would defeat the principal legislative purpose in adopting the statute. (Order No. 2012-884 at p. 17).

At the outset, the Commission mischaracterizes Sierra Club's claim as a "relitigation" of the initial decision to build, rather than a challenge to the prudence of "going forward" to complete the project in light of material new facts impacting project costs and available alternatives. The Commission misapprehends the Baseload Act as relieving the utility of the ongoing responsibility to reevaluate the prudency of going forward with the project in the face of materially changed circumstances which undermine the prudence of the project itself. Indeed, the Act expressly contemplates the prudent decision to abandon a nuclear baseload project and the recovery of costs sunk into such a project to the point of such abandonment.

> Where a plant is abandoned after a base load review order approving rate recovery has been issued, the capital costs and AFUDC related to the plant shall nonetheless be recoverable under this article provided that the utility shall bear the burden of proving by a preponderance of the evidence that the decision to abandon construction of the plant was prudent. Without limiting the effect of Section 58-33-275(A), recovery of capital costs and the utility's cost of capital associated with them may be disallowed only to the extent that the failure by the utility to anticipate or avoid the allegedly imprudent costs, or to minimize the magnitude of the costs, was imprudent considering the information available at the time that the utility could have acted to avoid or minimize the costs. The commission shall order the amortization and recovery through rates of the investment in the abandoned plant as part of an order adjusting rates under this article. South Carolina Code (Supp. 2009) § 58-33-280.(K).

Note that this 'plant abandonment' provision of the BLRA employs the identical prudence standard requiring cost anticipation, avoidance or minimization for abandoned plant cost recovery as do the Act's provisions for rejecting imprudent cost overruns sought here. South Carolina Code (Supp. 2009) 58-33-275.(E). Allowing consideration of the prudence of project abandonment and cost recovery solely at the will of the utility, while depriving utility customers of the opportunity to even raise the issue of project cancellation, where current conditions make prudent, would distort the Baseload Review Act into an imbalanced measure flowing benefits unilaterally to the utility while imposing undue risks on ratepayers. Such an interpretation of the BLRA is fundamentally at odds with the legislative purpose of balancing the interests of the utility with those of its ratepayers through allowing the utility to recover

> the prudently incurred costs associated with new base load plants . . . .while at the same time protecting customers of investor-owned electrical utilities from responsibility for imprudent financial

obligations or costs.

South Carolina Energy Users Committee v. South Carolina Public Service Commission, 388 S.C. 495; 697S.E.2d 592 (2010).

The Commission's interpretation of the BLRA - Incrementally increasing the costs of a project without considering the overall prudence of abandonment in favor of less costly alternatives- simply represents throwing good money after bad. Here, the Company has failed to even consider the fundamental prudence question of going forward until forced to confront the material new facts regarding alternatives presented by Sierra's expert, Dr. Mark Cooper. The Company's inadequate eleventh hour response falls far short of the thorough, multi-variable analysis of alternatives necessary to meet its prudence burden under the Act. Despite Company CEO Marsh's admission that material changes in the cost of this nuclear project and alternatives should prompt a reevaluation of the prudence of going forward versus abandonment, no such thorough prudence review has yet been provided by the Company. The overwhelming evidence in this record of material changes which have increased the cost of this project while decreasing the cost of available alternatives warrant a Commission directive to the Company to promptly undertake and submit such a comprehensive prudence evaluation.

Witness Marsh characterized the necessary evaluation of both the initial decision to undertake this project as well as a comparable thorough evaluation of the going-forward decision as requiring a "complex, multi-scenario analysis of generating options for the company," Marsh, Tr. 100, lines 21-24. Mr. Marsh

acknowledges that the Company had submitted no such revised analysis to ORS or the Commission prior to this proceeding since the initial Baseload Act application.

> We have not, because we didn't believe it was required, and based on our experience in the industry we didn't think anything had changed to the point or would rise to the level of significance that would require us to do so.

Marsh, Tr. 106, lines 11-15. Indeed, it was not until after Sierra's expert, Dr. Mark Cooper submitted his prefiled Surrebuttal Testimony and Exhibits in this very proceeding, that any going-forward evaluation of this project of any sort was undertaken by the Company and provided to the Commission.

> We have done that. It was clear, after we got the surrebuttal from Dr. Cooper, that he was not satisfied with the responses we had in our testimony and our rebuttal testimony, so I did instruct Dr. Lynch to go back and update the study that was done in 2008 that had served as the basis for making the decision to move forward with nuclear as the best alternative for our customers. He did the study.

Marsh, Tr. 103, lines 17-24. Witness Lynch's "Comparative Economic Analysis of Completing Nuclear Construction or Pursuing a Gas Resource Strategy," was served and filed on September 27, 2012, only two (2) business days before this hearing. Marsh, Tr. 104, lines 19-24.

While the Lynch analysis, by its own terms purporting to focus only on a single natural gas plant alternative, falls far short of representing the "complex, multi-scenario analysis of generating options for the company,"

deemed necessary even by the Company; its submission represents a tacit admission by the Company that, indeed, just such a thorough prudence review of this project is now warranted. Before approving any further cost overruns or schedule delays for this project the Commission should have required submission by the Company of just such a thorough prudence review.

Implicit in determining whether incurring specific cost overruns are "imprudent," within the meaning of the BLRA, South Carolina Code (Supp. 2009) §§ 58-33-270(E)(1) and 58-33-275(E), must be the more fundamental question of whether incurring any additional costs for completing the project would be imprudent. Would it be prudent to install new brakes on a car which has been totaled in a collision? Would it be prudent for Ford to complete construction of a new Edsel assembly factory after the market for the Edsel has collapsed? In a regulated utility environment, no less than in a competitive market, the going-forward decision for a project must always be subject to change. Failure to impose such prudence discipline on management will come at the expense of either corporate profits or the unjust costs imposed on captive ratepayers. It is the Commission's responsibility under the BLRA to ensure that SCE&G ratepayers do not bear the costs of the Company's imprudence.

> Thus, the goal of the Base Load Review Act is two-fold: (1) to allow SCE&G to recover its "prudently incurred costs" associated with the nuclear facility; and (2) to protect customers "from responsibility for imprudent financial

obligations or costs."

SC Energy Users Committee v. SC Public Service Commission, 388 S.C. 486 at 495, 697 S.E. 2d 587 (2010). Categorically excluding consideration of the prudence of going forward with construction of the plant under adversely changed conditions is at odds with this legislative purpose of protecting utility customers from imprudent costs.

Sierra Club's expert witness, Dr. Mark Cooper, demonstrated the regulatory principles supporting a Commission prudence remedy. The task of public utility commissions is generally to ensure that the utility delivers the least cost power, subject to the need for reliability and other considerations, since that would be the outcome in the marketplace. Competition drives the least cost, most efficient technology to the consumer. Emulating a competitive market, the public utility commission will consider whether the costs the utility seeks to recover from ratepayers are "just, reasonable and prudent." The commission oversees the decision about which technologies to use and which costs utilities are allowed to recover. Even where the construction of new facilities takes place within the parameters of an Integrated Resource Plan, which is a long term energy plan, the fact that the utility has been told or allowed to build a certain type of plant does not alter the fact that the costs cannot be recovered from ratepayers until the plant is used and useful and the cost (including the return on investment) are found to be just, reasonable and prudent. Tr. 957-958.

These two principles of utility regulation protect consumers from different potential abuses. Used and useful ensures that ratepayers receive service in exchange for the recovery of costs, while prudence ensures that the costs recovered are not excessive. If projects are cancelled or abandoned they do not become used and useful and their costs would not normally be recovered in the marketplace (except if all sellers suffer similar problems, in which case all sellers in the market will put their prices up to cover the costs). However, utilities may recover the costs associated with abandoned projects, if they can show that the decision to commence the project was prudent and the causes of the termination of the project were not imprudence on the part of the utility. Allowing utilities advanced cost recovery dramatically alters the aforementioned consumer protection process in a number of ways. The utility gets to charge ratepayers before the plant is used and useful. In the case of South Carolina, the recovery of approved costs is guaranteed, even if the reactor is not completed. Advanced cost recovery with a guarantee of recovery shifts the risk of construction so dramatically that it provides a strong incentive for utilities to pursue the technologies that have been favored by legislators. By conferring a special advantage on nuclear, it distorts the utility and regulatory decision making process and gives utilities an incentive to choose investments that yield higher, guaranteed returns, even where the investments are not the lowest cost option. Shifting the risk of nuclear reactor construction onto the backs of

ratepayers creates an ongoing problem because it diminishes the incentive to drive a hard bargain with vendors or joint owners that recovers cost overruns from them rather than ratepayers.. Pre-approving and guaranteeing costs creates a large quantity of sunk costs. Utilities can "nickel and dime" the Commission to death with a series of "small" cost overruns, which the commission may feel pressured to approve, since so much has been sunk. Because the technologies that tend to be favored by advanced cost recovery are very large central station technologies, utilities favor them, because they increase the rate base and inflate stockholder income. Nuclear projects are so large that management tends to become totally focused on the single large project and to disregard or resist alternative projects. Utility management may even have an incentive to oppose alternatives that might reduce the need for the large central station facilities. Tr. 958-960.

This general view of advanced cost recovery is consistent with the Base Load Review Act. On the one hand, the BLRA gave strong incentives for the utility to choose to build nuclear reactors to meet the future need for electricity. The statute gave a utility investing a new nuclear reactor a remarkably good deal: advanced cost recovery, no challenge of individual cost elements as imprudent, guaranteed cost recovery as long as the utility adhered to the construction schedule and cost estimates, flexible scheduling contingencies, an automatic rate of inflation; the choice of advanced cost recovery or normal utility cost

recovery; the full commission- approved rate of return, even though substantial risk had been transferred to ratepayers through all of the above mechanisms; and allocation of recovery of costs of a base load facility according to peak load demand.

On the other hand, the BLRA did not alter the definitions of just, reasonable and prudent. The initial decision to build a reactor with advanced cost recovery is subject to the traditional principles that require the costs associated with the project to be just, reasonable and prudent, even though that decision was before the reactor became used and useful. The BLRA required cost increases to also be subject to full prudence review.

Having opened the door to a prudence review by seeking to recover cost overruns from ratepayers, the underlying statute also requires that the cost overrun be considered in the broader context of the overall project. While the Commission need not look back to disallow any costs that have already been deemed prudent by the initial ruling, it must ask whether further costs should be incurred. The statue allows all costs that have been approved to be recovered, but that does not stop the utility from deciding not to incur additional costs, if the project is no longer the least cost alternative, nor does it preclude the Commission from examining the new, higher cost of the total project as part of its prudence review of the incremental cost overruns. Tr. 960-961.

Prudence requires decision makers to base their decisions on what

we know today. The imprudence of continuing construction is clear if the decision maker recognizes the full range of alternatives available, acknowledges the continuing risk of nuclear construction cost overruns, matches supply and demand, and amortizes sunk costs in a manner that balances the interests of stockholders and ratepayers. While the company has failed to do so, under the BLRA the Public Service Commission must.

Taking this prudent approach, which is widely recognized in the industry, the ratepayers of South Carolina will save billions of dollars, reduce their carbon footprint, and preserve their flexibility to respond to the climate policy that is actually adopted. With a proper consideration of the materially changed conditions today, the Commission should find that continued construction is imprudent because:

-The reactors have not been economic for years.

-The failure to re-examine the economics of nuclear construction is imprudent.

-The failure to conduct a rigorous and reasonable analysis is imprudent.

In Dr. Cooper's opinion construction of Summer 2 & 3 is no longer the least cost approach to meeting the need for electricity in South Carolina.

Dr. Cooper concludes that Summer 2 & 3 will cost SCE&G ratepayers far more than readily available alternatives. His preliminary estimates adjust the original estimates from the BLRA proceeding. Since the company analysis focused on natural gas as the primary alternative, he

provided estimates of the cost of nuclear compared to gas in light of the dramatic decline in projected gas prices and the absence of a carbon "tax." Recent developments make the assumption of high gas prices and high carbon taxes that were central to the economic analysis in 2008 very doubtful at best. Using current values, levelized cost of Summer 2 and 3 is likely to be $8 billion more than the cost of natural gas. Other factors like falling demand and declining cost of alternatives, could lower the cost of meeting the need for electricity with alternatives even more. Simply put, Summer 2 & 3 are far from the least cost option, even under the more severe conditions that result from the BLRA.

Dr. Cooper's evaluation can only be suggestive because SCE&G has not done the detailed economic evaluation as it should and because many of the factors that will affect the final sunk costs are hidden behind a veil of confidential secrecy. The magnitude of the sunk costs and other obligations that SCE&G has incurred with the execution of the project to date is unclear, but there is a good chance that they are substantially less than $8 billion, which means that the ratepayers would be better off if the Utility abandoned the project.

Dr. Cooper bases these statements on the comparison with gas, since that was the primary alternative the Company identified when it sought cost recovery for the project; but there could be even less costly options available today that a comprehensive economic analysis of all the options would reveal. Unfortunately, the utility has failed to present an

economic analysis of the overall project. It should have done so in its Integrated Resource Plan; it did not. It could have done so as part of this proceeding; it did not. Dr. Cooper recommends that the Commission order it do so as part of this proceeding.

Time is of the essence. Because of the structure of the BLRA, the longer the utility delays in accepting the fact that the nuclear reactors are no longer the least cost option, the heavier the uneconomic burden that will be placed on ratepayers and the state economy. Under the BLRA, the utility can charge ahead and complete the project in spite of the fact that it is not economic and there is nothing the Commission can do to stop it from recovering the costs approved up to the original cost (with inflation adjustments). What the Commission can do to protect the ratepayers from harm, is to require the Company to do the proper economic analysis and reject the recovery of cost overruns, since increasing the cost of a project that is already not economic is the height of imprudence. Tr. 954-956.

The collapse of gas prices has been dramatic, tied to a technological breakthrough in drilling which has dramatically increased the availability of natural gas.

Exhibit MNC-2, Hearing Exhibit 10, sheds light on this dramatic shift. It reproduces the gas price projection from the 2008 proceeding and overlays the most recent projection from the Energy Information Administration. The evidence in the 2008 proceeding calculated the increase in annual levelized cost if natural gas was 25% higher than the baseline, at $53.4

million per year. The current EIA projection is 62% lower than the baseline. The levelized cost of the natural gas scenario at the EIA projected costs would be about $132 million less per year. Since the 2008 baseline natural gas scenario was $15 million per year higher than nuclear, at current EIA projected prices natural gas would be about $115 million per year lower.

Exhibit MNC-2, Hearing Exhibit 10, shows that the EIA projections are consistent with the current futures market. Today one can buy natural gas futures for 2020 delivery at a fraction of the level used in the 2008 analysis. The long run history of natural gas prices shows that the very high prices of the 2005-2008 period when the policy and analysis of nuclear reactors was being written were an aberration, the exception, rather than the rule. Tr. 962-963.

In addition, the reduction in escalation as a result of general economic conditions would apply to non-fuel costs for the gas plant. The Company projects a significant reduction in those non-fuel costs of nuclear construction and compares that to Dr. Cooper's estimated natural gas fuel cost savings. The Company points out that fuel costs are a larger part of total gas costs than fuel costs are of nuclear. However, the company's own estimate shows that non-fuel costs are still important in the total gas cost. For nuclear, fuel costs are 13% of total costs, while for gas fuel is 41% of gas costs. Tr. 81 If we assume that the non-fuel component of gas generation has enjoyed a similar reduction due to the general

economic conditions, the proportionate reduction in revenue requirement for the non-fuel component would be about $200 million, as described in Attachment MNC-R-1, Hearing Exhibit 10. Combining the fuel and non-fuel cost savings from natural gas, compared to nuclear, gas would still beat nuclear by a wide margin. The economic advantage of gas could more than offset the sunk costs that the utility is allowed to recover, leaving the ratepayers better off as a result of the decision to abandon the project. Tr. 980.

The Base Load Review Act carved out a limited safe harbor for nuclear reactor construction by suspending the used and useful standard and guaranteeing advanced recovery of costs that had been approved. It was not a blank check.

-It preserved the prudence review of proposals,

- It required cost overruns to be found not imprudent, and

- It left the general utility regulatory principles of just reasonable and prudency in place.

This Court affirmed this view of the Act when it disallowed a large contingency cost fund that the company had proposed because it did not identify specific costs that were to be recovered. SC Energy Users Committee v. SC Public Service Commission, 388 S.C. 486 at 496, 697 S.E. 2d 587 (2010). Prudence in the competitive markets, which utility

regulation seeks to emulate, is a vigilant and rigorous task master. An investor must evaluate decisions constantly to ensure that what seemed reasonable yesterday is reasonable today in light of current facts and knowledge. A project that is no longer prudent must be abandoned because its costs will not be recoverable in a competitive market, unless everyone else makes the mistake of continuing with uneconomic investments.

The rush by South Carolina Electric and Gas to sign an early contract and lead the "nuclear renaissance" was swiftly rendered uneconomic by dramatic changes in the marketplace and developments in electricity technologies. The assumptions on which SCE&G relied to justify the construction of two reactors proved to be wrong. It assumed

- High demand growth
- High gas prices
- High carbon taxes
- A stampede of orders as a result of the nuclear renaissance
- Smooth approval of new, untested nuclear designs

Although every one of these assumptions proved to be wrong and 90 percent of the other utilities that had contemplated building new reactors changed their minds, the CEO of South Carolina Electric and Gas said there was no reason to re-examine the decision to build two new reactors. Reflecting this view, the direct and rebuttal testimony of the

company contained no analysis at all to demonstrate the prudence of continuing to construct the reactors. It was only after the company reviewed Dr. Cooper's surrebuttal testimony that it felt compelled to prepare an economic analysis of the construction of Summer 2 & 3. Tr. 940-949; 994-1001.

The eleventh hour report entitled *Comparative Economic Analysis of Completing Construction or Pursuing a Gas Resource Strategy* is fundamentally flawed, as was the original analysis, in numerous conceptual and methodological ways. These flaws have been magnified by the marketplace, technology, and policy developments of the past four years. Under the Base Load Review Act, we cannot look back to evaluate prudence, but we must look forward. Even today, with $2 billion sunk in the Summer 2 & 3 reactors, the ratepayers of South Carolina will be best served if the construction is cancelled and lower cost alternatives are used to meet the future need for low carbon electricity.

The Company's comparative analysis rests on the assumption that the only way to decarbonize the U.S. economy and the electricity sector is to impose a large direct tax on carbon. There is a growing body of economic theory and evidence that the most effective way to decarbonize the economy is not to impose massive taxes on carbon, but to target subsidies and incentives at low carbon resources. This is more than just theory, it is the policy reality.

The piece of climate change legislation that came closest to being enacted into law contain substantial mandates for efficiency and renewables, which would have dramatically reduced the need for central station generation like nuclear reactors. Moreover, since the climate change legislation stalled, the Environmental Protection Agency enacted standards to reduce carbon emissions from coal plants; the Department of Energy adopted standards that will significantly raise the efficiency of appliances; and ASHRA building code recommendations will dramatically increase the efficiency of buildings.

The Company focused primarily on two options – nuclear and natural gas – and ignores a host of alternatives that are preferable to both. These are the very alternatives that economic theory, policy reality and portfolio management practice indicate are preferable. Excluding all the other options dooms the analysis to fail as the basis of a Commission decision.

The Company rushed to sign a construction contract before the design was approved or the costs were known. Committing to a risky, uncertain, high cost, inflexible long-lived asset that requires a long lead time is exactly the wrong strategy in an uncertain environment. Prudent investors should hedge their bets and buy time to have better information by seeking projects with smaller commitments and shorter lead times.

The empirical analysis is fundamentally flawed because it excludes from consideration the most important variables. By focusing on only two options, low cost alternatives, other than gas, are not considered. The company examines 27 sensitivity analyses with identical quantities of nuclear and natural gas capacity, but never considers alternative scenarios with more efficiency (less need for capacity) or a greater contribution of renewables.

Although the Company repeatedly points out that nuclear construction is a very risky undertaking and refuses to commit to a specific cost figure, its analysis assumes that nuclear construction is risk free. The analysis does not include any scenarios in which there will be further cost overruns. Historical and contemporary experience suggests that the construction phase is the most prone to overruns. Yet Company witness Lynch concedes that assuming even a 10% increase in nuclear costs would adversely impact his comparative analysis. Tr. 918, lines 9-13.

Generation capacity is assumed to be fixed, regardless of changes in demand. Even though natural gas generation can be added in smaller increments, such as those units in the 400 MW range or less identified by witness Lynch, now on the Company system, Lynch, Tr. 924, lines 16-24, with shorter construction intervals, but the Company assumes that it will be added in exactly the same amount at exactly the same time as the nuclear units. As a result, the construction costs of natural gas are fixed at an

unrealistically high level.

The nuclear construction scenario increases the reserve margin above traditional levels and the Company imposes this excess capacity on the natural gas scenario. Significant potential capital cost savings are ignored.

The costs that have been sunk in the construction project, which must be paid under the Base Load Review Act, are assumed to be paid in a manner that maximizes the burden on ratepayers (and maximizes the income of the Company). This raises the cost of the gas scenario. Historical experience suggests that abandonment costs should be treated in a manner that treats stockholders and ratepayers in a more balanced manner, a possibility that is contemplated by the Base Load Review Act. Tr. 940-949; 994-1001.

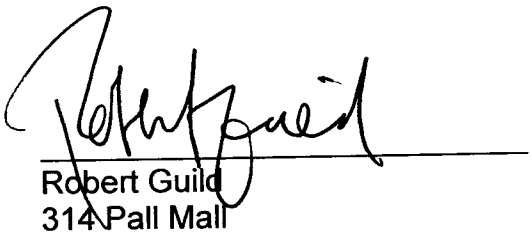
It its beyond serious dispute that material changes have occurred since the initial decision to was made to undertake this project which have significantly increased its cost while the cost and availability of alternatives have significantly declined. Despite the Company's recognition that such materially changed circumstances warrant the conduct of a "complex, multi-scenario analysis of generating options for the company," no such analysis has been performed for review by the Commission. The eleventh-hour 'comparative Economic Analysis" reviewed only a single alternative

strategy and suffered from numerous other analytical flaws and limitations. The Baseload Review Act prudence standard requires the conduct of such a comprehensive alternatives review in order to adequately protect the interests of ratepayers "from responsibility for imprudent financial obligations or costs." SC Energy Users Committee v. SC Public Service Commission, 388 S.C. 486 at 495, 697 S.E. 2d 587 (2010).

CONCLUSION

For the foregoing reasons the decisions of the Public Service Commission approving the May 15, 2012, Petition by South Carolina Electric & Gas Company pursuant to the Base Load Review Act for approval of an updated capital costs schedule in connection with the construction of a baseload nuclear power plant should be reversed.

August 1, 2013



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